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**Broad Field** 

# 04 Architecture and Building

# **Australian Standard Classification of Education (ASCED)**

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### **Broad Field 04 Architecture and Building**

Architecture and Building is the study of the art, science and techniques involved in designing, constructing, adapting and maintaining public, commercial, industrial and residential structures and landscapes. It includes the study of the art and science of designing and planning urban and regional environments.

The theoretical content of Broad Field 04 Architecture and Building includes:

- aesthetics and space dynamics
- · building economics
- building science
- building techniques and technologies
- construction management
- architectural design and drawing
- town planning

The main purpose of this broad field of education is to develop an understanding of integrating structural and aesthetic elements in buildings and environments, and construction methods, techniques and materials.

This broad field comprises the following narrow fields:

**Narrow Field** 

# 0401 Architecture and Urban Environment

#### Narrow Field 0401 Architecture and Urban Environment

Architecture and Urban Environment is the study of the art and science of planning and designing public, commercial, industrial and residential buildings, and their interiors. It includes the study of planning and designing built environments.

The main purpose of this narrow field of education is to develop an understanding of the structural, aesthetic, operational and environmental aspects of building design, and the interaction between humans and the built environment.

Courses in Narrow Field 0401 Architecture and Urban Environment develop skills in:

- monitoring construction to ensure compliance with specifications
- preparing architectural scale drawings and specifications for design and construction
- · devising and recommending land use and development options

This narrow field comprises the following detailed fields:

040101 Architecture

040103 Urban Design and Regional Planning

040105 Landscape Architecture

040107 Interior and Environmental Design

040199 Architecture and Urban Environment, n.e.c.

#### 040101 Architecture

Architecture is the study of the art, science and techniques of building design. It includes utilitarian ends, such as the soundness of the structure, the functional and economic efficiency of the building, and aesthetic considerations.

Examples of subjects in this detailed field include:

- architectural construction and structures
- · architectural rendering techniques
- architectural history and theory
- architectural design and practice

## 040103 Urban Design and Regional Planning

Urban Design and Regional Planning is the study of designing and planning towns and rural communities to meet the needs of the population.

- · community planning
- urban and regional planning principles
- urban design
- land use planning
- · urban land development
- · social impact assessment

### 040105 Landscape Architecture

Landscape Architecture is the study of planning, designing and installing exterior environments with concern for functionality, practicality and human needs and requirements. It includes the design of parks and gardens integrated with the built environment.

Examples of subjects in this detailed field include:

- landscape design
- landscape planning
- landscape structures
- planting design
- urban landscapes

### 040107 Interior and Environmental Design

Interior and Environmental Design is the study of planning and designing interior environments of homes, offices, factories and other buildings with concern for functionality, practicality and human needs and requirements.

Examples of subjects in this detailed field include:

- · interior building design concepts
- user centred design
- interior design material technologies

#### **Exclusions:**

Ergonomics. This is included in Detailed Field 061301 Occupational Health and Safety. Heat, light and sound control. These are included in Detailed Field 030905 Building Services.

040199 Architecture and Urban Environment, n.e.c.

This detailed field includes all Architecture and Urban Environment not elsewhere classified.

Examples of subjects in this detailed field include:

· building conservation

Narrow Field

# 0403 Building

### Narrow Field 0403 Building

Building is the study of the science, technology and techniques of assembling, erecting and maintaining public, commercial, industrial and residential structures and their fittings.

The main purpose of this narrow field of education is to develop an understanding of the functional aspects of construction, planning, development and management of buildings. It also involves developing the ability to examine and interpret building plans and specifications and to organise, cost and complete the tasks required in the construction and maintenance of buildings.

Courses in Narrow Field 0403 Building develop skills in:

- building construction
- · determining the type and quantity of building materials required
- inspecting building work and materials for compliance with specifications, regulations and standards
- interpreting building plans, regulations and codes of practice

This narrow field comprises the following detailed fields:

040301 Building Science and Technology

040303 Building Construction Management

040305 Building Surveying

040307 Building Construction Economics

040309 Bricklaying and Stonemasonry

040311 Carpentry and Joinery

040313 Ceiling, Wall and Floor Fixing

040315 Roof Fixing

040317 Plastering

040319 Furnishing Installation

040321 Floor Coverings

040323 Glazing

040325 Painting, Decorating and Sign Writing

040327 Plumbing

040329 Scaffolding and Rigging

040399 Building, n.e.c.

### 040301 Building Science and Technology

Building Science and Technology is the study of the theories and techniques required to construct and maintain structures.

Examples of subjects in this detailed field include:

- · builders working drawings
- building maintenance and refurbishment
- facades and partitions

### 040303 Building Construction Management

Building Construction Management is the study of planning and controlling building projects.

Examples of subjects in this detailed field include:

- · construction planning
- · construction project control
- building site management

### 040305 Building Surveying

Building Surveying is the study of assessing the condition of buildings to ensure compliance with plans, specification and regulations and that proper techniques and materials have been used.

Examples of subjects in this detailed field include:

- building assessment
- building codes and standards
- · certification codes and practice

### **040307 Building Construction Economics**

Building Construction Economics is the study of estimating quantities of materials and total costs involved in building and construction.

- building project feasibility
- · building cost estimation
- · contractual arrangements costings
- · .quantity surveying

### 040309 Bricklaying and Stonemasonry

Bricklaying and Stonemasonry is the study of cutting, shaping, laying and joining bricks, stone and building blocks to construct and repair all types of masonry structures.

Examples of subjects in this detailed field include:

- arch construction
- bricklaying techniques
- · glass block construction
- stone inscription methods
- stone restoration and renovation
- stone veneer construction

#### **Exclusions:**

Brick paving. This is included in Detailed Field 040399 Building, n.e.c.

### 040311 Carpentry and Joinery

Carpentry and Joinery is the study of fabricating, assembling, installing, renovating and repairing doors, frames, formwork and other fittings in buildings.

Examples of subjects in this detailed field include:

- formwork, framework and trusses
- stair construction
- · window and door joinery

#### **Exclusions:**

Furniture construction. This is included in Detailed Field 030113 Cabinet Making.

### 040313 Ceiling, Wall and Floor Fixing

Ceiling, Wall and Floor Fixing is the study of fixing tiles and lining materials to ceilings, walls and floors. It includes fixing cladding materials to external surfaces.

- tile cutting
- · tiling wet areas
- wall cladding and lining

#### **Exclusions:**

Fixing fibrous sheets and applying plaster. These are included in Detailed Field 040317 Plastering.

Timber flooring. This is included in Detailed Field 040321 Floor Coverings.

### 040315 Roof Fixing

Roof Fixing is the study of covering structures with roof tiles, shingles and other materials to form a waterproof surface.

Examples of subjects in this detailed field include:

- roofing claddings
- slate, shingle, concrete and metal roof tiles
- roof tiling and slating procedures

### 040317 Plastering

Plastering is the study of fixing fibrous sheets and applying plaster, cement-based and similar materials to ceilings, interior and exterior walls of buildings and the study of making plasterboard and plaster mouldings.

Examples of subjects in this detailed field include:

- · decorative plaster finishes
- fibrous plasterwork
- · rendering and moulding

### 040319 Furnishing Installation

Furnishing Installation is the study of measuring and installing curtains, blinds, awnings and other soft furnishings.

Examples of subjects in this detailed field include:

- curtain fitting
- · awning installation techniques
- blinds measurement

### 040321 Floor Coverings

Floor Coverings is the study of measuring and laying parquetry, carpet, cork, linoleum, vinyl and other resilient floor coverings.

Examples of subjects in this detailed field include:

- floor covering techniques
- · carpet layout measuring and marking
- parquetry and timber floor surfacing

### 040323 Glazing

Glazing is the study of installing and maintaining glass panes, mirrors and windscreens.

Examples of subjects in this detailed field include:

- · decorative glass finishes
- · leadlighting and stained glass
- silvering
- windscreen glazing

### 040325 Painting, Decorating and Sign Writing

Painting, Decorating and Sign Writing is the study of applying paint, varnish and paper finishes to decorate and protect interior and exterior surfaces. It includes the study of designing and painting signs.

Examples of subjects in this detailed field include:

- · painting and decorating techniques
- paint and wallpaper application
- · sign writing techniques

#### **Exclusions:**

Painting motor vehicles. This is included in Detailed Field 030507 Automotive Vehicle Refinishing.

### 040327 Plumbing

Plumbing is the study of designing, installing, maintaining and repairing pipelines, fixtures, fittings and related equipment for water, steam, gas, sewage and other liquids in residential, public commercial and industrial establishments.

- gas fitting
- fire sprinkler systems
- pipe joint techniques and fittings
- roof plumbing

# 040329 Scaffolding and Rigging

Scaffolding and Rigging is the study of erecting and dismantling modular scaffolding and rigging.

Examples of subjects in this detailed field include:

- mast climbers
- · safety nets and static lines
- suspended scaffolds
- flying foxes and cableways
- natural and synthetic ropes

# 040399 Building, n.e.c.

This detailed field includes all Building not elsewhere classified.

Examples of subjects in this detailed field include:

- dogging
- steel fixing
- brick paving